

FIGURE 1

TNIK 1 MASDSEPARSLDIDLSALRDPACIFELVGVNCTYGVYKGRHVNTCOLAAIKVNDVTDEEEBETKQETNMKKYSHHR
 NIK 1 MASDSEPARSLDIDLSALRDPACIFELVGVNCTYGVYKGRHVNT-VTAAIKVNDVTDEEEBETKQETNMKKYSHHR

TNIK 81 HIATYYGAFIKKPEECDDQIWMVMEPCAGSVDITKNTKENTLKEEWIATICREILRGLSHLCHKVTHKDIKGNVL
 NIK 80 HIATYYGAFIKKPEECDDQIWMVMEPCAGSVDITKNTKENTLKEEWIATISREILRGLSHLCHKVTHKDIKGNVL

TNIK 161 LTENAEVKLVDFGVAQLDRTVGRNRTFICTPYWMAPEVIACDENITATYDEKSDLSGHTATFMAECAPPICTINHHTK
 NIK 160 LTENAEVKLVDFGVAQLDRTVGRNRTFICTPYWMAPEVIACDENITATYDEKSDLSGHTATFMAECAPPICTINHHTK

TNIK 241 ALFLIPNUPURLKSKKWSKKESFIECCIVKNYQKPSFROILKHPITRDQPNRGVRIQLKDHIDRTKKGKGEKDETE
 NIK 240 ALFLIPNUPURLKSKKWSKKESFIECCIVKNYQKPSFROILKHPITRDQPNRGVRIQLKDHIDRTKKGKGEKDETE

TNIK 321 YEYSGSEBEEBEEFN--DSETPSSITNPGESTLRDELRLQENKERSEALKKQILOC--RENEEHRKQLLAERQKRIE
 NIK 320 YEYSGSEBEEBEEFN--DSETPSSITNPGESTLRDELRLQENKERSEALKKQILOC--RENEEHRKQLLAERQKRIE

TNIK 397 EDEKQRRRLLEEQQIAENELRSQEREOKN-----NDEBOMSR--EERNNHHEEYIHOOLEEEOQOLE
 NIK 400 EDEKQRRRLLEEQQIAENELRSQEREOKN-----NDEBOMSR--EERNNHHEEYIHOOLEEEOQOLE

TNIK 460 ILQOQLLEOAMLLHDKRSPHAC--OPFFQQLDS-----KPSHAPC--E--RE--HYDPAD
 NIK 480 ILQOQLLEOAMLLHDKRSPHAC--OPFFQQLDS-----KPSHAPC--E--RE--HYDPAD

TNIK 540 RSLNROSPAMTUKVANRISDPNPERESSTGSGVQPARTFPMNPFVUQIHLVAVKSQGPALTASQSVHEQPTKGI
 NIK 532 RSLNROSPAMTUKVANRISDPNPERESSTGSGVQPARTFPMNPFVUQIHLVAVKSQGPALTASQSVHEQPTKGI

TNIK 620 SGFQALNVTSHRVEMPRNSOPTSDNPELTRISKDRSEMLRODM--LILKVLQRTTSSEPARAKNSPCNCSALGPR
 NIK 584 SGFQALNVTSHRVEMPRNSOPTSDNPELTRISKDRSEMLRODM--LILKVLQRTTSSEPARAKNSPCNCSALGPR

TNIK 699 LSGPPIRANNDLRRTPFLESPTORTSSCS99999TSSQSSQSGSFCSCAGSENNRVNANSEKSGSPVLPHEPAK
 NIK 640 LSGPPIRANNDLRRTPFLESPTORTSSCS99999TSSQSSQSGSFCSCAGSENNRVNANSEKSGSPVLPHEPAK

TNIK 779 VKPEESRDTTPSRPASVKKALDULTALAKELRORLEETNKA-KRVTHYSSSSEESSESEBENICEETHINGVAVS
 NIK 716 VKPEESRDTTPSRPASVKKALDULTALAKELRORLEETNKA-KRVTHYSSSSEESSESEBENICEETHINGVAVS

TNIK 859 DIPFLIPTCAPCNSQVNVGVNIGLETSHADSFCSISTEGTLMIRETSCEKKSCHSDNGFAGHINLPOLVQCSHG
 NIK 788 DIPFLIPTCAPCNSQVNVGVNIGLETSHADSFCSISTEGTLMIRETSCEKKSCHSDNGFAGHINLPOLVQCSHG

TNIK 939 PACTPTEGLGRVSTHSQEMDSCTEYQCGSSRASETFVTPRVVTSUTDDEDEESSAAALTSPLKCOLKNEAR
 NIK 846 PACTPTEGLGRVSTHSQEMDSCTEYQCGSSRASETFVTPRVVTSUTDDEDEESSAAALTSPLKCOLKNEAR

TNIK 1019 HISSVVNVNPTNIREHSDTFEIKYKRIHNSSELCAALWGVNIVCTENHIMLDRSGGKVYELINNNKRYMVLLECLN
 NIK 892 HISSVVNVNPTNIREHSDTFEIKYKRIHNSSELCAALWGVNIVCTENHIMLDRSGGKVYELINNNKRYMVLLECLN

TNIK 1099 VLVITISGKKOKLMVYYLSWLKNNILHNDPEVEKKQCVTVGULEGCTHYKVVKYERIKPIVJALKNAUETVYAWAPKIYHK
 NIK 972 VLVITISGKKOKLMVYYLSWLKNNILHNDPEVEKKQCVTVGULEGCTHYKVVKYERIKPIVJALKNAUETVYAWAPKIYHK

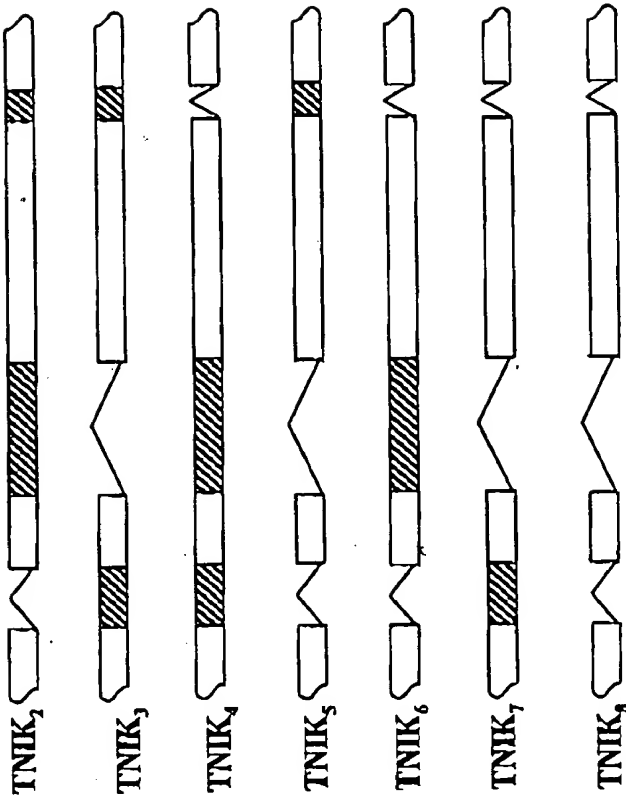
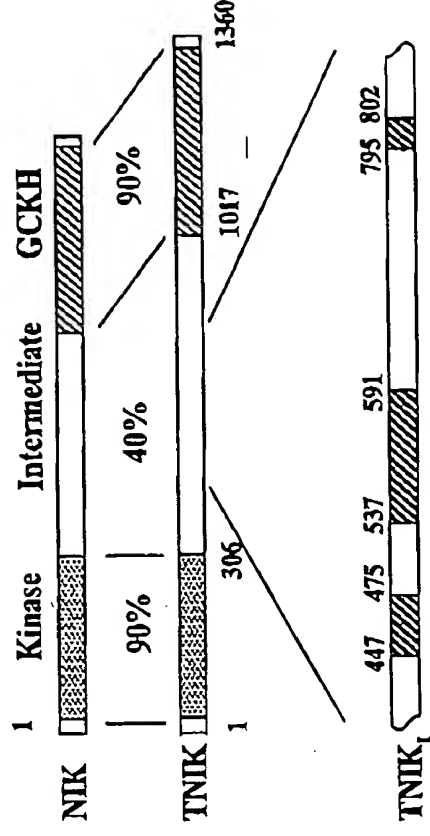
TNIK 1179 EMARKSEADLOJMKPIIMVLTVEEGORLKVIEGSHGTFVINDVSCNSYDIYFUSHICNTIPIHATILLNEDMEMLVCY
 NIK 1052 EMARKSEADLOJMKPIIMVLTVEEGORLKVIEGSHGTFVINDVSCNSYDIYFUSHICNTIPIHATILLNEDMEMLVCY

TNIK 1259 EDEGVYVNTYCRITKDVVLQWGEEMPTSVAYTHSNCIMGWEKATEIRSVETGHLDCVEMHKRAQILKFLCENDKVFES
 NIK 1132 EDEGVYVNTYCRITKDVVLQWGEEMPTSVAYTHSNCIMGWEKATEIRSVETGHLDCVEMHKRAQILKFLCENDKVFES

TNIK 1339 VRSGGSSQVEMTICHTSLB
 NIK 1212 VRSGGSSQVEMTICHTSLB

001200 001200 001200

FIGURE 3



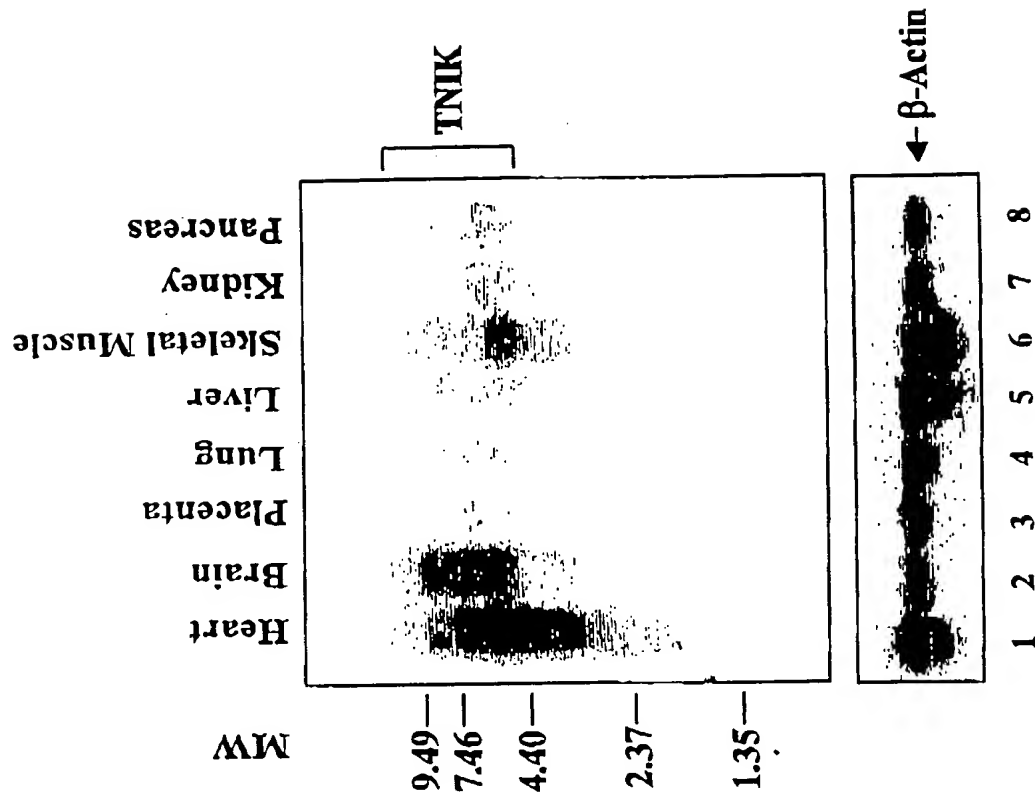


FIGURE 5A

FIGURE 5B

FIGURE 7

FIGURE 6

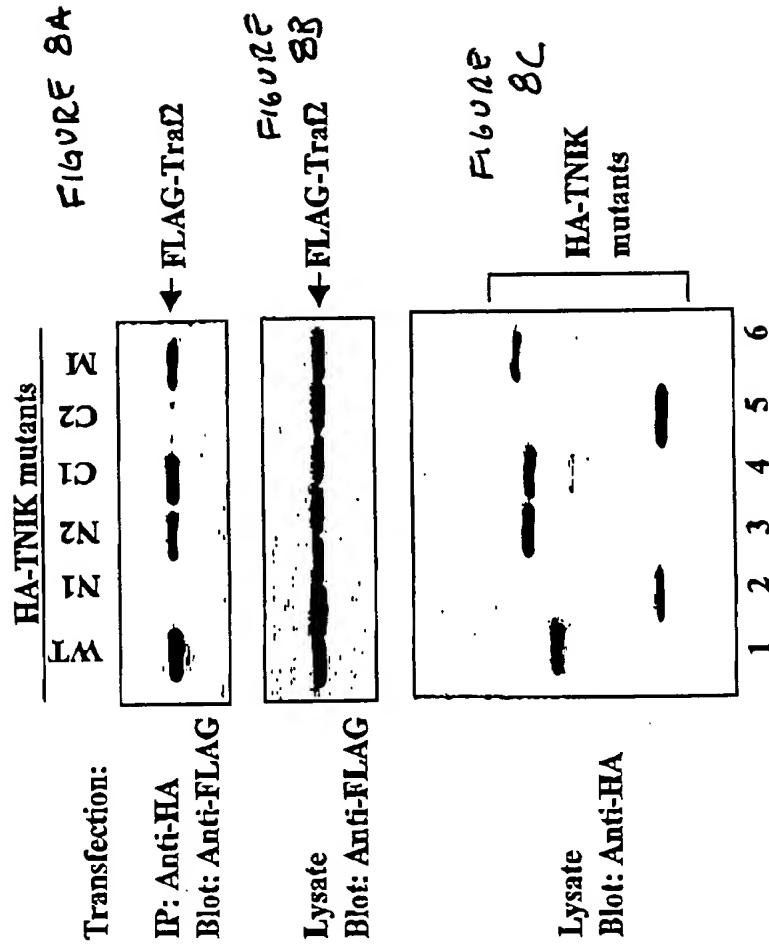
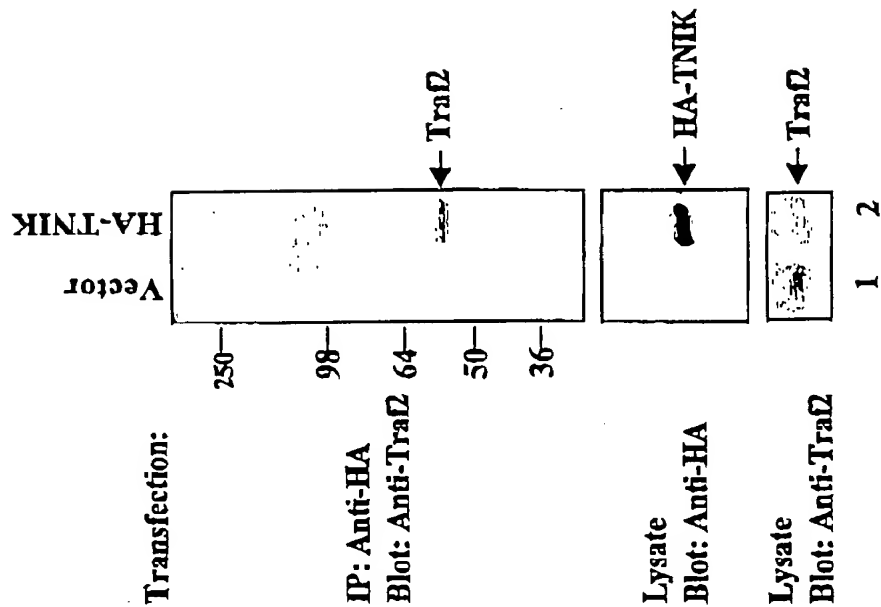
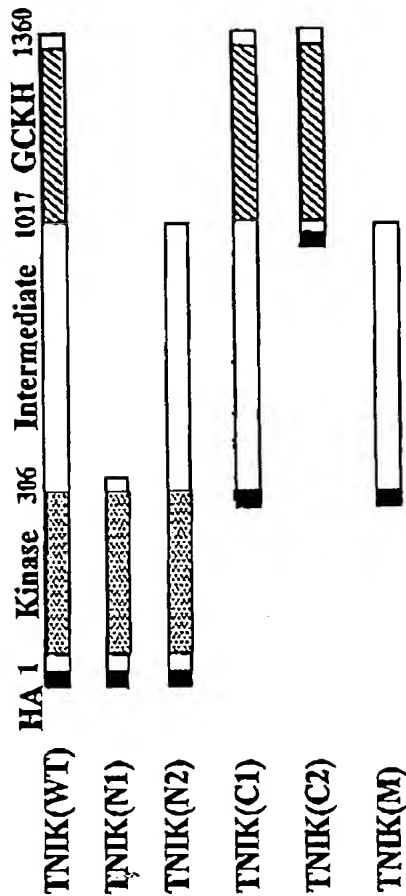


FIGURE 9

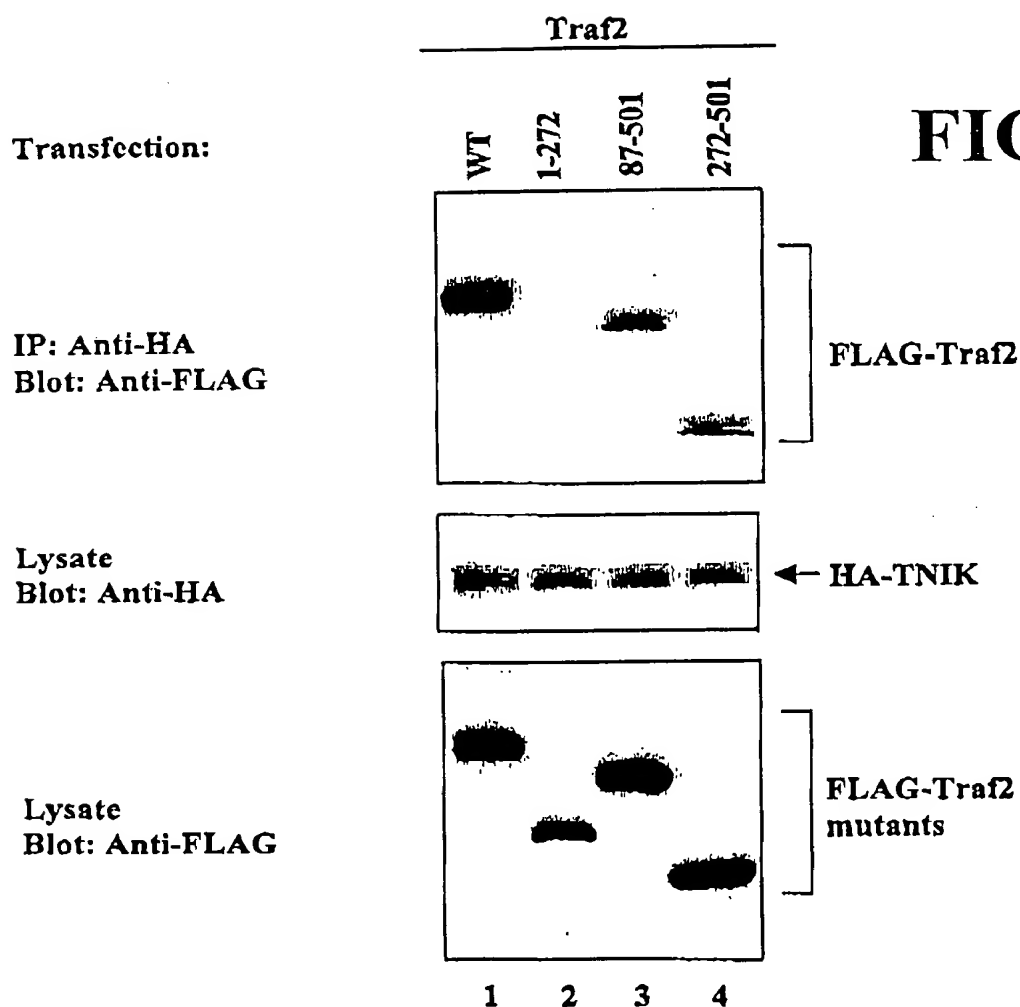
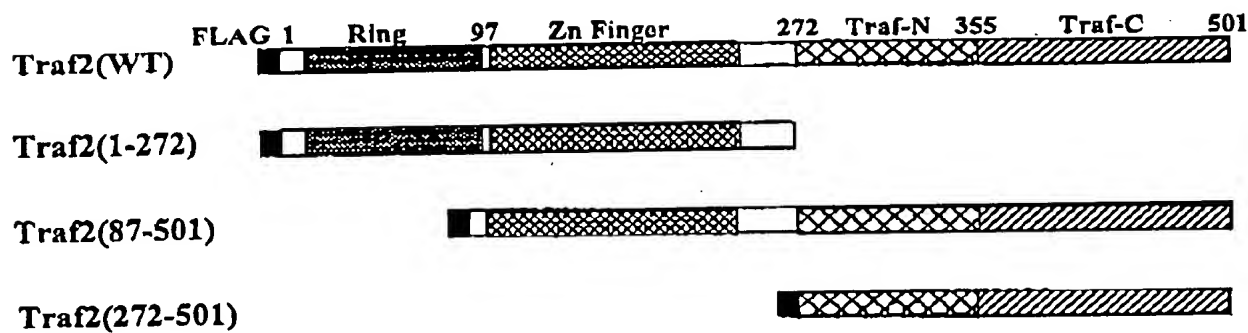


FIGURE 10

FIGURE 12

B.

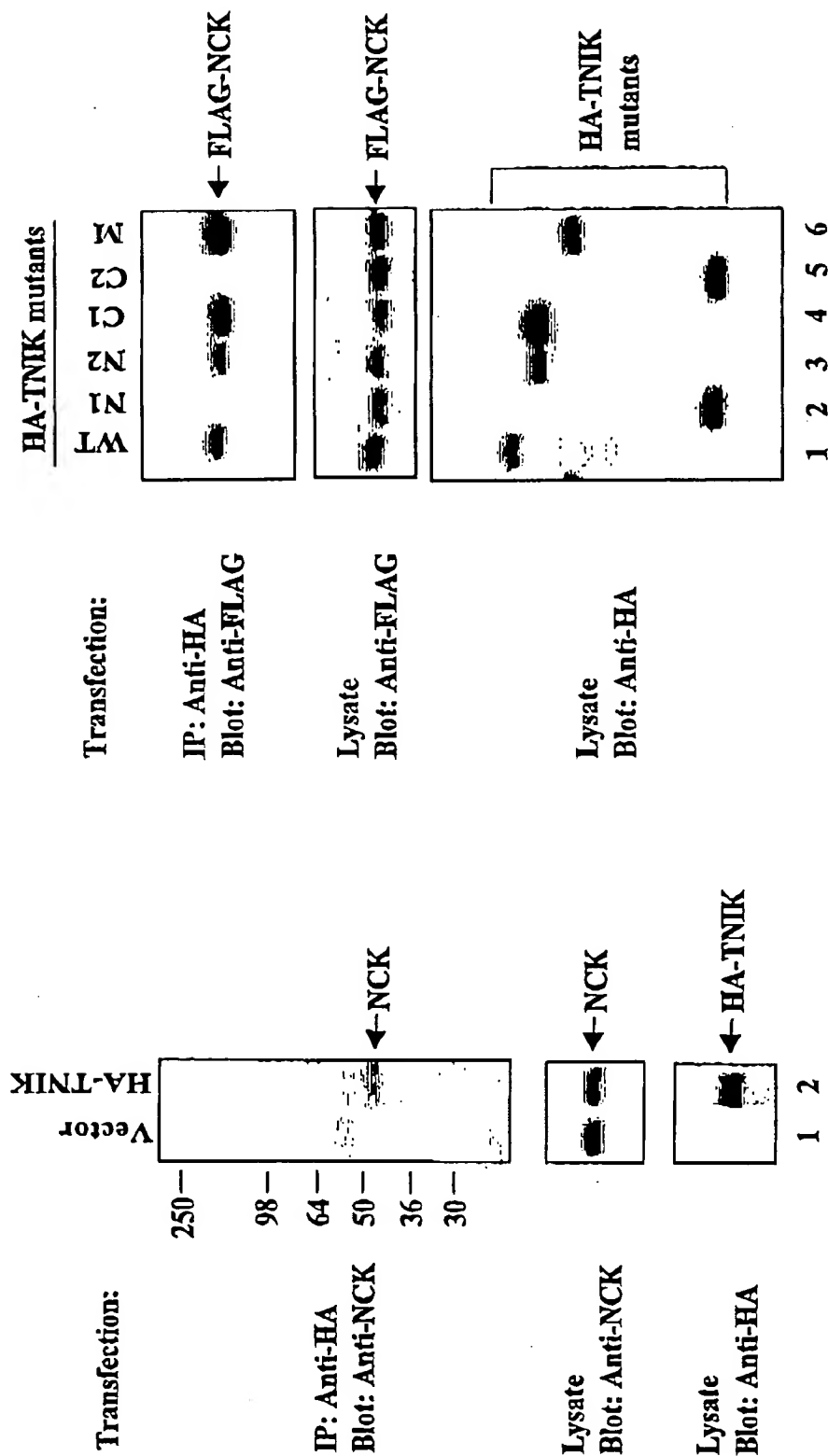


FIGURE 13

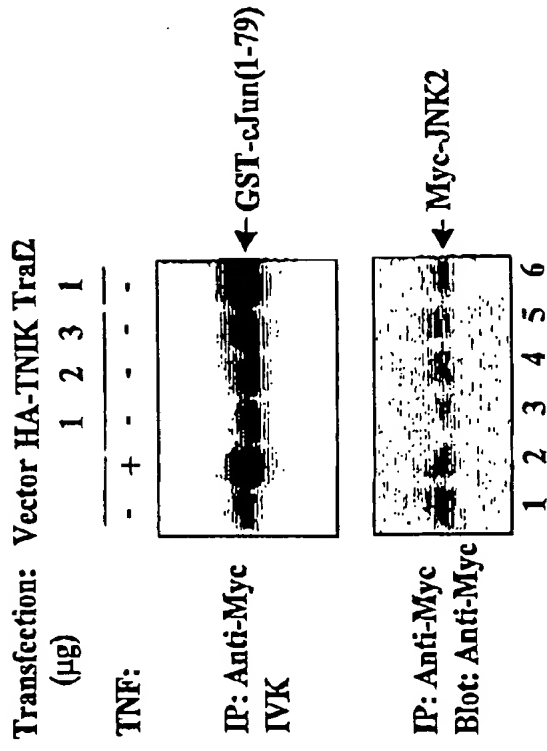
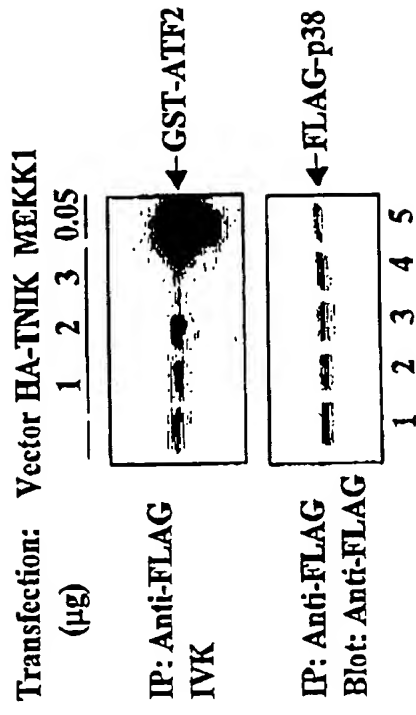


FIGURE 15



B.

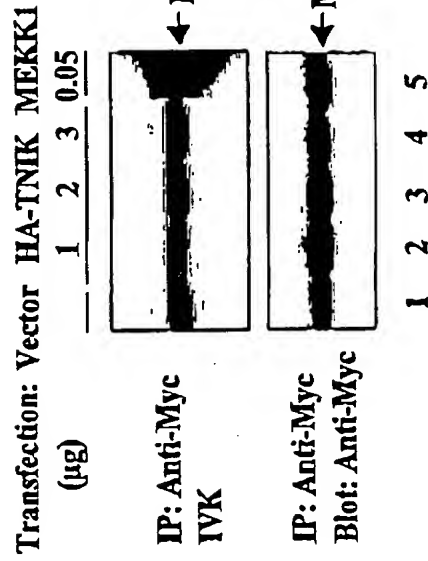


FIGURE 14

D.

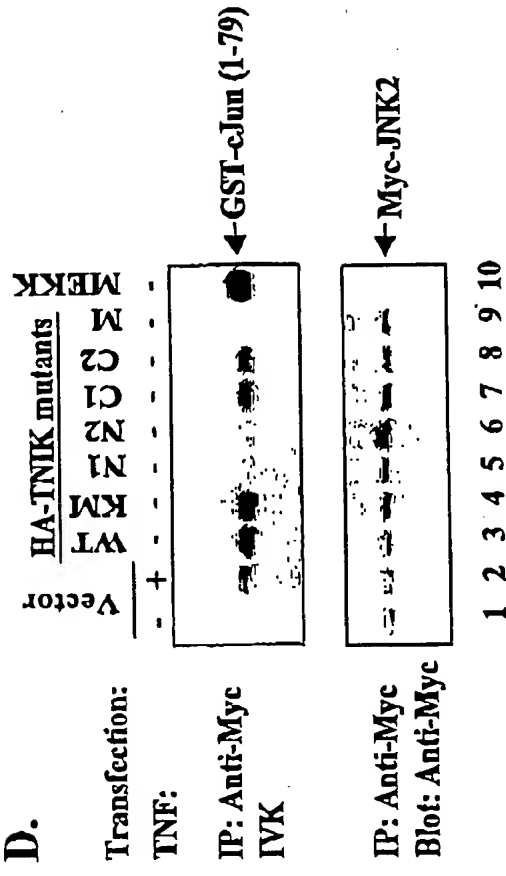


FIGURE 16

A.

Vector



TNIK



TNIK(KM)



TNIK(N1)



TNIK(C1)



JNK2



FIGURE 17

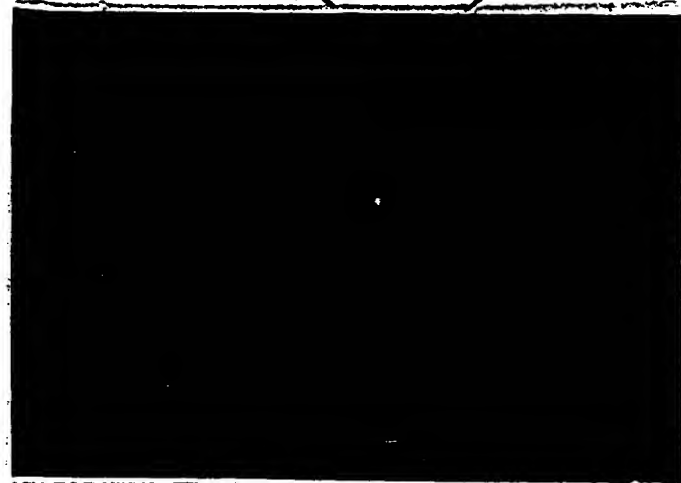
001230 9515150

FIGURE 18

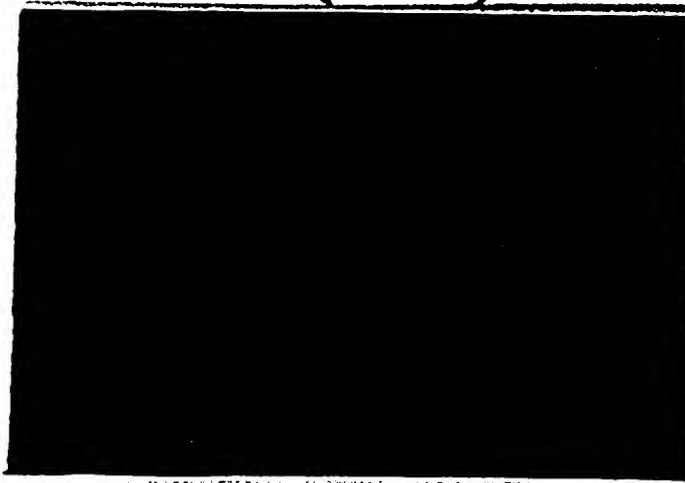
Vector



TNIK(WT)



TNIK(KM)



RIP



FIGURE 19

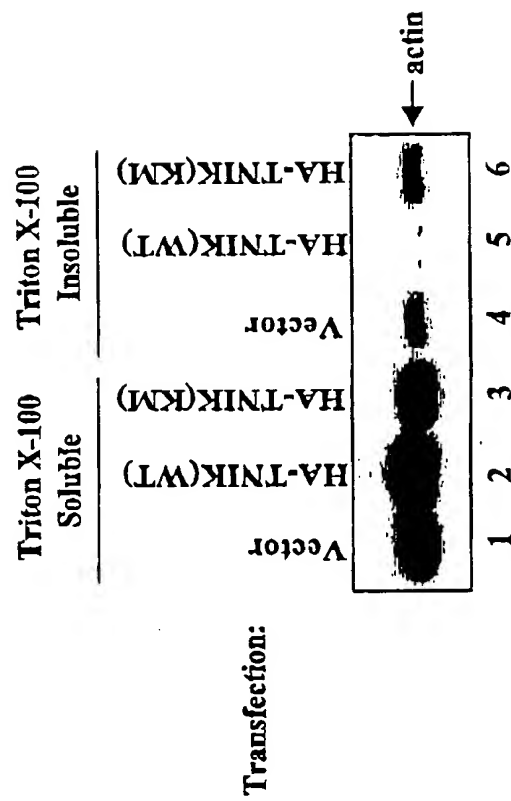


FIGURE 20

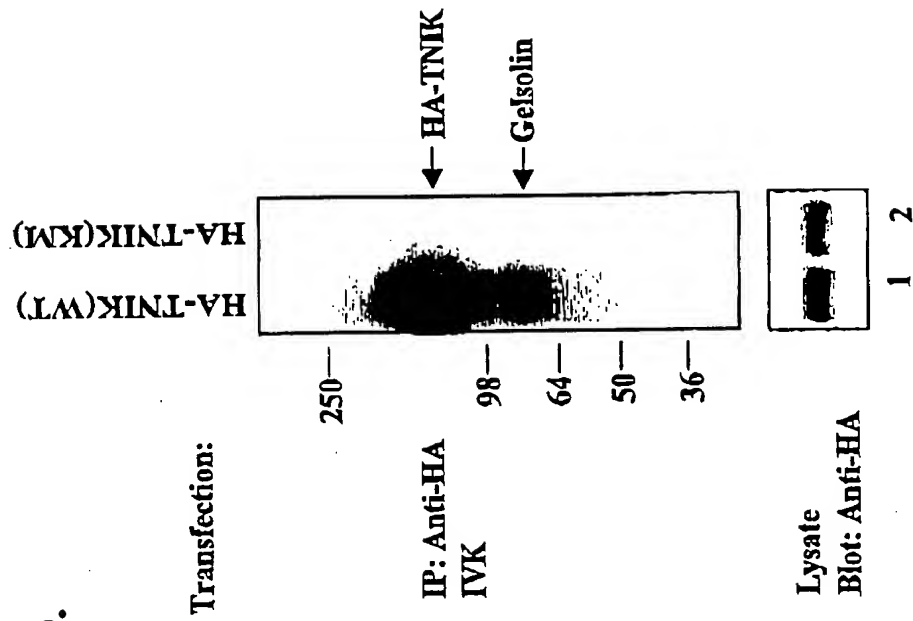


Figure 21

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TATTCTCATCACCGGAATATTGCTACATACTATGGTGCTTTTATCAAAAAGAACCACCAGGCATGGATGACCAA
CTTTGGTTGGTGATGGAGTTTTGTGGTGCTGGCTCTGTACCGGACCTGATCAAGAACACAAAAGGTAACACGTTG
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GAAGGTCAAAGATTAAGGTTATTTTTGGTTACACACTGCTTCCATGTAATTGATGTTGATTTCAGGAAACTCT
TATGATATCTACATACCATCTCATATTCAGGGCAATATCACTCTCATGCTATTGTCTCTTGCCTAAAACAGAT
GGAATGGAATGCTTGTGTTGCTATGAGGATGAGGGGGTGATGTAAACACCTATGGCCGGATAACTAAGGATGTG
GTGCTCCAATGGGGAGAAATGCCACGTCTGTGGCCTACATTCATTCCAATCAGATAATGGGCTGGGGCGAGAAA
GCTATTGAGATCCGGTCAGTGGAACAGGACATTTGGATGGAGTATTTATGCATAAGCGAGCTCAAAGGTTAAAG
TTTCTATGTGAAAAGAAATGATAAGGTATTTTTTGCATCCGTGCGATCTGGAGGAAGTAGCCAAGTGTTTTTCATG
ACCCTCAACAGAAATTCATGATGAACCTGGTAA

Year	Age	Sex	Occupation	Education	Income	Health	Family	Community	Environment	Policy	Program	Impact	Outcome
2000	18-24	Male	Student	High School	\$10,000	Good	2	Low	Urban	State	Program A	10%	10%
2000	25-34	Female	Teacher	College	\$20,000	Good	3	Low	Urban	State	Program A	15%	15%
2000	35-44	Male	Engineer	College	\$30,000	Good	4	Low	Urban	State	Program A	20%	20%
2000	45-54	Female	Nurse	College	\$25,000	Good	3	Low	Urban	State	Program A	18%	18%
2000	55-64	Male	Manager	College	\$35,000	Good	4	Low	Urban	State	Program A	22%	22%
2000	65-74	Female	Retiree	College	\$15,000	Good	3	Low	Urban	State	Program A	12%	12%
2000	75+	Male	Retiree	College	\$15,000	Good	3	Low	Urban	State	Program A	12%	12%
2000	18-24	Female	Student	High School	\$10,000	Good	2	Low	Urban	State	Program A	10%	10%
2000	25-34	Male	Teacher	College	\$20,000	Good	3	Low	Urban	State	Program A	15%	15%
2000	35-44	Female	Engineer	College	\$30,000	Good	4	Low	Urban	State	Program A	20%	20%
2000	45-54	Male	Nurse	College	\$25,000	Good	3	Low	Urban	State	Program A	18%	18%
2000	55-64	Female	Manager	College	\$35,000	Good	4	Low	Urban	State	Program A	22%	22%
2000	65-74	Male	Retiree	College	\$15,000	Good	3	Low	Urban	State	Program A	12%	12%
2000	75+	Female	Retiree	College	\$15,000	Good	3	Low	Urban	State	Program A	12%	12%
2000	18-24	Male	Student	High School	\$10,000	Good	2	Low	Urban	State	Program A	10%	10%
2000	25-34	Female	Teacher	College	\$20,000	Good	3	Low	Urban	State	Program A	15%	15%
2000	35-44	Male	Engineer	College	\$30,000	Good	4	Low	Urban	State	Program A	20%	20%
2000	45-54	Female	Nurse	College	\$25,000	Good	3	Low	Urban	State	Program A	18%	18%
2000	55-64	Male	Manager	College	\$35,000	Good	4	Low	Urban	State	Program A	22%	22%
2000	65-74	Female	Retiree	College	\$15,000	Good	3	Low	Urban	State	Program A	12%	12%
2000	75+	Male	Retiree	College	\$15,000	Good	3	Low	Urban	State	Program A	12%	12%
2000	18-24	Female	Student	High School	\$10,000	Good	2	Low	Urban	State	Program A	10%	10%
2000	25-34	Male	Teacher	College	\$20,000	Good	3	Low	Urban	State	Program A	15%	15%
2000	35-44	Female	Engineer	College	\$30,000	Good	4	Low	Urban	State	Program A	20%	20%
2000	45-54	Male	Nurse	College	\$25,000	Good	3	Low	Urban	State	Program A	18%	18%
2000	55-64	Female	Manager	College	\$35,000	Good	4	Low	Urban	State	Program A	22%	22%
2000	65-74	Male	Retiree	College	\$15,000	Good	3	Low	Urban	State	Program A	12%	12%
2000	75+	Female	Retiree	College	\$15,000	Good	3	Low	Urban	State	Program A	12%	12%
2000	18-24	Male	Student	High School	\$10,000	Good	2	Low	Urban	State	Program A	10%	10%
2000	25-34	Female	Teacher	College	\$20,000	Good	3	Low	Urban	State	Program A	15%	15%
2000	35-44	Male	Engineer	College	\$30,000	Good	4	Low	Urban	State	Program A	20%	20%
2000	45-54	Female	Nurse	College	\$25,000	Good	3	Low	Urban	State	Program A	18%	18%
2000	55-64	Male	Manager	College	\$35,000	Good	4	Low	Urban	State	Program A	22%	22%

[illegible]

Figure 23

ATGGCGAGCGACTCCCCGGCTCGAAGCCTGGATGAAATAGATCTCTCGGCTCTGAGGGACCCTGCAGGGATCTTT
GAATTGGTGGAACTTGTGGAAATGGAACATACGGGCAAGTTTATAAGGGTCGTGTCATGTCAAAACGGGCCAGCTT
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AAGGTTATTTTTTGGTTACACACTGGTTTCCATGTAATTGATGTTGATTACAGGAACTCTTATGATATCTACATA
CCATCTCATATTACAGGGCAATATCACTCCTCATGCTATTGTCTATCTTGCTTAAACAGATGGAATGGAATGCTT
GTTTGCTATGAGGATGAGGGGGTGATGTAAACACCTATGGCCGGATAACTAAGGATGTGGTGCTCCAATGGGGA
GAAATGCCACGCTCTGTGGCCTACATTCATTCCAATCAGATAATGGGCTGGGGCGAGAAAGCTATTGAGATCCGG
TCAGTGGAAACAGGACATTTGGATGGAGTATTTATGCATAAGCGAGCTCAAAGGTTAAAGTTTCTATGTGAAAGA
AATGATAAGGTATTTTTGCATCCGTGCGATCTGGAGGAAGTAGCCAAGTGTTTTTCATGACCCTCAACAGAAAT
TCCATGATGAACTGGTAA

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Figure 24

ATGGCGAGCGACTCCCCGGCTCGAAGCCTGGATGAAATAGATCTCTCGGCTCTGAGGGACCTGCAGGGATCTTT
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AACTGGTAA

Figure 25

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TGGTAA

[illegible]

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GATGGAGTATTTATGCATAAGCGAGCTCAAAGGTTAAAGTTTCTATGTGAAAGAAATGATAAGGTATTTTTTGCA
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Figure 27

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Figure 28

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AAAGAGGAGTGGATTGCATACATCTGCAGGGGAAATCTTACGGGGGCTGAGTCACCTGCACCAGCATAAAGTGATT
CATCGAGATATTAAAGGGCAAATGTCTTGCTGACTGAAAATGCAGAAAGTTAAACTAGTGGAAGTTTGGAGTCAGT
GCTCAGCTTGATCGAACAGTGGGCAGGAGGAATACTTTCATTGGAAGTCCCTACTGGATGGCACCAGAAGTTATT
GCCTGTGATGAAAACCCAGATGCCACATATGATTTCAAGAGTGACTTGTGGTCTTTGGGTATCACCGCCATTGAA
ATGGCAGAAGGTGCTCCCCCTCTCTGTGACATGCACCCCATGAGAGCTCTCTTCTCATCCCCCGGAATCCAGCG
CCTCGGCTGAAGTCTAAGAAGTGGTCAAAAAAATTCAGTCATTTATTGAGAGCTGCTTGGTAAAGAATCACAGC
CAGCGACCAGCAACAGAACAAATTGATGAAGCATCCATTTATACGAGACCAACCTAATGAGCGACAGGTCCGCTT
CAACTCAAGGACCATATTGATAGAACAAGAAGAAGCGAGGAGAAAAAGATGAGACAGAGTATGAGTACAGTGGA
AGTGAGGAAGAAGAGGAGGAGAATGACTCAGGAGAGCCAGCTCCATCCTGAATCTGCCAGGGGAGTCGACGCTG
CGGAGGGACTTTCTGAGGCTGCAGCTGGCCAAACAGGAGCGTTCTGAGGCCCTACGGAGGCAGCAGCTGGAGCAG
CAGCAGCGGGAGAATGAGGAGCACAAGCGGCAGCTGCTGGCCGAGCGTCAGAAGCGCATCGAGGAGCAGAAAGAG
CAGAGGCGGGCGGCTGGAGGAGCAACAAAGGCGAGAGAAGGAGCTGCGGAAGCAGCAGGAGAGGGAGCAGCGCCGG
CACTATGAGGAGCAGATGCGCCGGGAGGAGGAGGAGGAGGCGTGCGGAGCATGAACAGGAATATAAGCGCAAACAA
TTGGAAGAACAGAGACAAGCAGAAAGACTGCAGAGGCAGCTAAAGCAAGAAAGAGACTACTTAGTTTCCCTTCAG
CATCAGCGGCAGGAGCAGAGGCCTGTGGAGAAGAAGCCACTGTACCATTACAAGAAGGAATGAGTCCTAGTGAG
AAGCCAGCATGGGCCAAGGAGATCCACATCTGGTAGCTGTAAATCCCAGGGACCTGCCTTGACCGCCTCCCAG
TCAGTGACGAGCAGCCACAAGGGCCTCTCTGGGTTTCAGGAGGCTCTGAACGTGACCTCCACCGCGTGGAG
ATGCCACGCCAGAATCAGATCCCACCTCGGAAAATCCTCCTCTCCCCACTCGCATTGAAAAGTTTGACCGAAGC
TCTTGGTTACGACAGGAAGAAGACATTCCACCAAAGGTGCCTCAAAGAACAACCTTCTATATCCCAGCATTAGCC
AGAAAGAATTCTCCTGGGAATGGTAGTGCTCTGGGACCCAGACTAGGATCTCAACCCATCAGAGCAAGCAACCCCT
GATCTCCGGAGAATGAGCCCATCTTGAGAGAGCCCCCTTGAGAGGACCAGCAGTGGCAGTTTCTCCAGCTCCAGC
ACCCCTAGCTCCCAGCCCAGCTCCCAAGGAGGCTCCAGCCTGGATCACAAAGCAGGATCCAGTGAACGCACCAGA
GTTCGAGCCAACAGTAAGTCAGAAGGATCACCTGTGCTTCCCCATGAGCCTGCCAAGGTGAAACCAGAAGAATCC
AGGGACATTACCCGGCCAGTCGACCAGCTGATCTGACGGCATTAGCCAAAGAACTAAGAGAACTCCGGATTGAA
GAAACAAACCGCCCAATGAAGAAGGTGACTGATTACTCTCTCCTCAGTGAGGAGTCAGAAAGTAGCGAGGAAGAG
GAGGAAGATGGAGAGAGCGAGACCCATGATGGGACAGTGGCTGTGAGCGACATACCCAGACTGATACCAACAGGA
GCTCCAGGCAGTAACGAGCAGTACAATGTGGGAATGGTGGGGACGCATGGGCTGGAGACCTCTCATCGGACAGT
TTCAGCGGCAGTATTTCAAGAGAAGGAACCTTGATGATTAGAGAGACGTCTGGAGAGAAGAAGCGATCTGGCCAC
AGTGACAGCAATGGCTTTGTGGCCACATCAACCTCCCTGACCTGGTGCAGCAGAGCCATTCTCCAGCTGGAACC
CCGACTGAGGGACTGGGGCGCGTCTCAACCCATTCCCAGGAGATGGACTCTGGGACTGAATATGGCATGGGGAGC
AGCACCAAAGCCTCCTTACCCCCCTTTGTGGACCCAGAGTATACCAGACGTCTCCCACTGATGAAGATGAAGAG
GATGAGGAATCATCAGCCGACGCTCTGTTTACTAGCGAACTTCTTAGGCAAGAACAGGCCAAACTCAATGAAGCA
AGAAAGATTTCCGGTGGTAAATGTAAACCCAACCAACATTCCGGCCTCATAGCGACACACCAGAAATCAGAAAATAC
AAGAAACGATTCAACTCAGAAATACTTTGTGCAGCTCTGTGGGGTGTAAACCTTCTGGTGGGGACTGAAAATGGC
CTGATGCTTTTGGACCGAAGTGGGCAAGGCAAAGTCTATAATCTGATCAACCGGAGGCGATTTAGCAGATGGAT
GTGCTAGAGGGACTGAATGTCCTTGTGACAATTTAGGAAAGAAGAATAAGCTACGAGTTTACTATCTTTCATGG
TTAAGAAACAGAATACTACATAATGACCCAGAAGTAGAAAAGAAACAAGGCTGGATCACTGTTGGGGACTTGGAA
GGCTGTATACATTATAAAGTTGTTAAATATGAAAGGATCAAATTTTGGTGATTGCCTTAAAGAATGCTGTGGAA
ATATATGCTTGGGCTCCTAAACCGTATCATAAATTCATGGCATTTAAGTCTTTTGCAGATCTCCAGCACAAAGCCT
CTGCTAGTTGATCTCACGGTAGAAGAAGGTCAAAGATTAAAGGTTATTTTGGTTTACACACTGGTTTCCATGTA
ATTGATGTTGATTCAGGAAACTCTTATGATATCTACATAACCATCTCATATTCAGGGCAATATCACTCCTCATGCT
ATTGTCATCTTGCCATAAACAGATGGAATGGAATGCTTGTGTTGCTATGAGGATGAGGGGGTGTATGTAAACACC
TATGGCCGGATAACTAAGGATGTGGTGCTCCAATGGGGAGAAATGCCACGTCTGTGGCTACATTCAATCCAAT
CAGATAATGGGCTGGGGCGAGAAAGCTATTGAGATCCGGTCAGTGGAACAGGACATTTGGATGGAGTATTTATG
CATAAGCGAGCTCAAAGGTTAAAGTTTCTATGTGAAAGAAATGATAAGGTATTTTTCATCCGTGCGATCTGGA
GGAAGTAGCCAAGTGTTTTTCATGACCCTCAACAGAAATTCATGATGAACGGTAA

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Figure 29

1 MASDSPARSLDEIDLSALRDPAGIFELVELVGNNGTYGQVYKGRHVKTGQLAAIKVMDVTG
61 DEEEEIKQEINMLKKYSHHRNIATYYGAFIKKNPPGMDDQLWLVMFCGAGSVTDLIKNT
121 KGNTLKEEWIAYICREILRGLSHLHQHKVIHRDIKGQNVLLTENAEVKLVDFGVSAQLDR
181 TVGRRNTFIGTPYWMAPEVIACDENPDATYDFKSDLWSLGITAIEMAEGAPPLCDMHMPMR
241 ALFLIPRNPAPRLKSKKWSKKFQSFIESCLVKNHSQRPATEQLMKHPPFIRDQPNERQVRI
301 QLKDHIDRTKKKRGEKDETEYEYSGSEEEEEENDSGEPSSIILNLPGESTLRRDFLRLQLA
361 NKERSEALRRQOLEQQQRENEEHKRQLLAERQKRIEEQKEQRRRLLEEQQRREKELRKQOE
421 REQRRHYEQMRREEERRRAEHEQEYKRKQLEEQRQAERLQRQLKQERDYLVSLOHQHQE
481 QRPVEKKPLYHYKEGMSPEKPAWAKEVEERSRLNRQSSPAMPHKVANRISDPNLPPRSE
541 SFSISGVQPARTPPMLRPVDPQIPHLVAVKSQGPALTASQSVHEQPTKGLSGFQEALNVT
601 SHRVEMPRQNSDPTSENPLPLTRIEKFDRSSWLRQEEDIIPKVPQRTTISPALARKNSP
661 GNGSALGPRLGSQPIRASNPDLRRTPILESPLOQTSSGSSSSSSSTPSSQPSQGGSQPG
721 SQAGSSERTRVRANSKSEGSPLPHEPAKVKPEESRDITRPSRPASYKKAIDEDLTALAK
781 ELRELRIEETNRPMKKVTDYSSSSEESSESEEEEEEDGESETHDGTAVSDIPLRIPTGAP
841 GSNEQYNVGMVGTHGLETSHADSFGSISREGTLMIRETSGEKKRS GHSDSNGFAGHINL
901 PDLVQQSHSPAGTPTEGLGRVSTHSQEMDSGTEYGMGSSTKASFTPFVDPRVYQTSPTDE
961 DEEDEESSAAALFTSELLRQEQA KLNEARKISVVNVNPTNIRPHSDTPEIRKYKKRFNSE
1021 ILCALWGVNLLVGTENGLMLLDRSGQGVYNLINRRRFQQMDVLEGLNVLVTISGKKNK
1081 LRVYYSWLRNRILHNDPEVEKKQGWITVGDLEGCIHYKVVKYERIKFLVIALKNAVEIY
1141 AWAPKPYHKFMAFKSFADLQHKPLLVDLTVEEGQRLKVI FGSHTGFHVIDVDSGNSYDIY
1201 IPSHIQGNITPHAIVILPKTDGMEMLVCYEDEGVYVNTYGRITKDVLQWGEMPTSVAYI
1261 HSNQIMGWGEKAIEIRSVETGHLDGVFMHKRAQRLKFLCERNDKVFFASVRSGGSSQVFF
1321 MTLNRNSMMNWZ

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Figure 30

1 MASDSPARSLDEIDL SALRDPAGIFELVELVGNNGTYGQVYKGRHVKTGQLAAIKVMDVTG
61 DEEEEIKQEINMLKKYSHHRNIATYYGAFIKKNPPGMDDQLWLVMFCGAGSVTDLIKNT
121 KGNTLKEEWIAYICREILRGLSHLHQHKVIHRDIKGQNVLLTENAEVKLVDFGVSAQLDR
181 TVGRRNTFIGTPYWMAPEVIACDENPDATYDFKSDLWSLGITAIEMAEGAPPLCDMHPMR
241 ALFLIPRNPAPRLKSKKWSKKFQSFIESCLVKNHSQRPATEQLMKHPFIRDQPNERQVRI
301 QLKDHIDRTKKKRGEKDETEYEYSGSEEEEEENDSGEPSSIILNLPGESTLRRDFLRQLA
361 NKERSEALRRQQLQEQQRENEEHKRQLLAERQKRIEEQKEQRRRLEEQQRREKELRKQQE
421 REQRRHYEEQMRREEERRRAEHEQEYIRRLQLEEEQRLLEILQQQLLHEQALLLEYKRKQL
481 EEQRQAERLQRQLKQERDYLVS LQHQRQEQRPVKKPLYHYKEGMSPEKPAWAKEI PHL
541 VAVKSQGPALTASQSVHEQPTKGLSGFQEALNVTSHRVEMPRQNSDPTSENPLPTRIEK
601 FDRSSWLQREEDIPPKVPQRTTISPALARKNSPGNGSALGPRLGSQPIRASNPDLRRT
661 PILESPLORTSSGSSSSSSSTPSSQPSQGSQPGSQAGSSERTRVRANSKSEGSPVLPHE
721 PAKVKPEESRDITRPSRPASYKKAIDEDLTALAKELRELRIEETNRPMKKVTDYSSSSEE
781 SESSEEEEDGESETHDGTAVSDIPRLIPTGAPGSNEQYNVGMVGTHGLETSHADSFSG
841 SISREGTLMIRETSGEKKRSGHSDSNGFAGHINLPDLVQQSHSPAGTPTEGLGRVSTHSQ
901 EMDSGTEYGMGSSTKASFTPFDPRVYQTSPTDEDEEDEESSAAALFTSELLRQEQAKLN
961 EARKISVVNVNPTNIRPHSDTPEIRKYKKRFNSEILCAALWGVNLLVGTENGLMLLDRSG
1021 QGKVYNLINRRRFQQMDVLEGLNVLVTISGKKNKL RVYYLSWLNRNRI LHNDEVEKKQGW
1081 ITVGDLEGC IYKVVKYERIKFLVIALKNAVEIYAWAPKPYHKFMAFKSFADLQHKPLL
1141 DLTVEEGQRLKVI FGSHTG FHVLDVDSGNSYDIYIPSHIQGNITPHAIVILPKTDGMEML
1201 VCYEDEGVYVNTYGRITKDVLQWGEMPTSVAYIHSNQIMGWGEKAIEIRSVETGHLDGV
1261 FMHKRAQRLKFLCERNKVFASVRS GGSSQVFFMTLNRNSMMNWZ

Figure 31

1 MASDSPARSLDEIDLALRDPAGIFELVELVGNNGTYGQVYKGRHVKTGQLAAIKVMDVTG
61 DEEEEIKQEINMLKKYSHHRNIATYYGAFIKKNPPGMDDQLWLVMFCGAGSVTDLIKNT
121 KGNTLKEEWIAYICREILRGLSHLHQHKVIHRDIKGQNVLLTENA EVKLVD FGVSAQLDR
181 TVGRRNTFIGTPYWMAPEVIACDENPDATYDFKSDLWSLGITAIEMAEGAPPLCDMHPMR
241 ALFLIPRNPAPRLKSKKWSKKFQSFIESCLVKNHSQRPATEQLMKHPFIRDQPNERQVRI
301 QLKDHIDRTKKKRGEKDETEYEYSGSEEEEEENDSGEPSSIINLPGESTLRRDFLRLQLA
361 NKERSEALRRQQLAQQRENEEHKROLLAERQKRIEEQKEQRRRLLEEQQRREKELRKQQE
421 REQRRHYEEQMRREEERRRAEHEQEYIRRQLEEEQRLLEILQQQLLHEQALLLEYKRKQL
481 EEQRQAERLQRQLKQERDYLVSLOHQHQEQRPVEKKPLYHYKEGMSPEKPAWAKEVEER
541 SRLNRQSSPAMPHKVANRISDPNLPPRSEFSISGVQPARTPPMLRPVDPQIPHLVAVKS
601 QGPALTASQSVHEQPTKGLSGFQALNVTSHRVEMPRQNSDPTSENPLPTRIEKFDRSS
661 WLRQEEDIPPKVPQRTTSSISPALARKNSPGNGSALGPRLGSQPIRASNPDLRRTTEPILES
721 PLQRTSSGSSSSSTPSSQPSQGSQPGSQAGSSERTRVRANSKSEGPSVLPHEPAKVK
781 PEESRDITRPSRPADLTALAKELRELRIETNRPMKKVTDYSSSSESESESEEEEEEDGES
841 ETHDGTAVSDIPRLIPTGAPGSNEQYNVGMVGTHGLETSHADSFSGSISREGTLMIRET
901 SGEKKRSGHSDSNGFAGHINLPDLVQQSHSPAGTPTEGLGRVSTHSQEMDSGTEYGMGSS
961 TKASFTPFVDPRVYQTSPTDEDEEDEESSAAALFTSELLRQEQAQLNEARKISVVNVNPT
1021 NIRPHSDTPEIRKYKKRFNSEILCAALWGVNLLVGTENGLMLLDRSGQGKVVNLINRRRF
1081 QQMDVLEGLNVLVTISGKKNKL RVYYLSWLRNRILHNDPEVEKKQGWITVGDLEGCIHYK
1141 VVKYERIKFLVIALKNAVEIYAWAPKPYHKFMAFKSFADLQHKPLLVDLTVEEGQRLKVI
1201 FGSHTGFHVIDVDSGNSYDIYIPSHIQGNITPHAIVILPKTDGMEMLVCYEDEGVYVNTY
1261 GRITKDVVLQWGEMPTSVAYIHSNQIMGWGEKAIEIRSVETGHLDGVFMHKRAQRLKFLC
1321 ERNDKVFFASVRSGGSSQVFFMTLNRNSMMNWZ

004280" 95454960

Figure 33

1 MASDSPARSLDEIDLSALRDPAGIFELVELVGNNGTYGQVYKGRHVKTGQLAAIKVMDVTG
61 DEEEEIKQEINMLKKYSHHRNIATYYGAFIKKNPPGMDDQLWLVMFCGAGSVTDLIKNT
121 KGNTLKEEWIAYICREILRGLSHLHQHKVIHRDIKGQNVLLTENAEVKLVDFGVSAQLDR
181 TVGRRNTFIGTPYWMAPEVIACDENPDATYDFKSDLWSLGITAIEMAEGAPPLCDMHPMR
241 ALFLIPRNPAPRLKSKKWSKKFQSFIESCLVKNHSQRPATEQLMKHPFIRDQPNERQVRI
301 QLKDHIDRTKKKRGEKDETEYEYSGSEEEEEENDSGEPSSIILNLPGESTLRRDFLRLQLA
361 NKERSEALRRQQLQEQQRENEEHKRQLLAERQKRIEEQKEQRRRLEEQQRRREKELRKQQE
421 REQRRHYEEQMRREEERRRAEHEQEYKRKQLEEQRQAERLQRQLKQERDYLVSLOHQRQE
481 QRPVEKKPLYHYKEGMS PSEKPAWAKEVEERSRLNRQSSPAMPHKVANRISDPNLPPRSE
541 SFSISGVQPARTPPMLRPVDPQIPHLVAVKSQGPALTASQSVHEQPTKGLSGFQEALNVT
601 SHRVEMPRQNSDPTSENPLPTRIEKFDRSSWLQREEDIPPKVPQRTTSSISPALARKNSP
661 GNGSALGPRLGSQPIRASNPDLRRTPEILESPLQRTSSGSSSSSSSTPSSQPSQGGSQPG
721 SQAGSSERTRVRANSKSEGSFVLPHEPAKVKPEESRDITRPSRPADLTALAKELRELRIE
781 ETNRPMKKVTDYSSSSEESSESEEEEEEDGESETHDGTAVASDIPRLIPTGAPGSNEQYNV
841 GMVGTHGLETSHADSFSGSISREGTLMIRETSGEKKRSGHSDSNGFAGHINLPDLVQQSH
901 SPAGTPTEGLGRVSTHSQEMDSGTEYGMGSSTKASFTPFDPRVYQTSPTDEDEEDEESS
961 AAALFTSELLRQEQAKLNEARKISVVNVNPTNIRPHSDTPEIRKYKKRFNSEILCAALWG
1021 VNLLVGTENGLMLLDRSGQGKVYNLINRRRFQQMDVLEGLNVLVTISGKKNKLRVYYLSW
1081 LRNRILHNDPEVEKKQGWI TVGDLEGC IHYKVVKYERIKFLVIALKNAVEIYAWAPKPYH
1141 KFMAFKSFADLQHKPLLVDLTVEEGQRLKVI FGSHTGFHVIDVDSGNSYDIYIPSHIQGN
1201 ITPHAIVILPKTDGMEMLVCYEDEGVYVNTYGRITKDVLQWGEMPTSVAYIHSNQIMGW
1261 GEKAI EIRSVETGHLDGVMHKRAQRLKFLCERNDKVFFASVRSGGSSQVFFMTLNRNSM
1321 MNWZ

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Figure 34

1 MASDSPARSLDEIDLSALRDPAGIFELVELVGNNGTYGQVYKGRHVKTGQLAAIKVMDVTG
61 DEEEEIKQEINMLKKYSHHRNIATYYGAFIKKNPPGMDDQLWLVMFCGAGSVTDLIKNT
121 KGNTLKEEWIAYICREILRGLSHLHQHKVIHRDIKGQNVLLTENA EVKLVD FGVSAQLDR
181 TVGRRNTFIGTPYWMAPEVIACDENPDATYDFKSDLWSLGITAIEMAEGAPPLCDMHPMR
241 ALFLIPRNPAPRLKSKKWSKKFQSFIESCLVKNHSQRPATEQLMKHPFIRDQPNERQVRI
301 QLKDHIDRTKKKRGEKDETEYEYSGSEEEEEENDSGEPSSIINLPGESTLRRDFLRLQLA
361 NKERSEALRRQLEQQQRENEEHKRQLLAERQKRIEEQKEQRRRLLEEQQRREKELRKQQE
421 REQRRHYEQMRREEERRRAEHEQEYIRROLEEEQRQLEILQQQLLHEQALLLEYKRKQL
481 EEQRQAERLQRQLKQERDYLVSLOHQRQEQRPEKKPLYHYKEGMSPPSEKPAWAKEI PHL
541 VAVKSQGPALTASQSVHEQPTKGLSGFQEALNVTSHRVMEMPRQNSDPTSENPPPLPTRIEK
601 FDRSSWL RQEEDI PPKV PQR TTSISPALARKNSPGNGSALGPRLGSQPIRASNPDLRRT
661 PILESPLQRTSSGSSSSSSSTPSSQPSSQGGSQPGSQAGSSERTRVRANSKSEGSPVLPHE
721 PAKVKPEESRDITRPSRPADLTALAKELRELRIEETNRPMKKVTDYSSSSSEESSESESE
781 EDGESETHDGTVAVSDIPRLIPTGAPGSNEQYNVGMVGTHGLETSHADSFSGSISREGTL
841 MIRETSGEKKRSGHSDSNGFAGHINLPDLVQQSHSPAGTPTEGLGRVSTHSQEMDSGTEY
901 GMGSSTKASFTPFDPRVYQTSPTDEDEDEDESSAAALFTSELLRQEQA KLNEARKISV
961 NVNPTNIRPHSDTPEIRKYKKRFNSEILCAALWGVNLLVGTENGLMLLDRSGQGKVYNLI
1021 NRRRFQQMDVLEGLNVLVTISGKKNKLRVYYLSWLRNRILHNDPEVEKKQGWITVGDLEG
1081 CIHYKVVKYERIKFLVIALKNAVEIYAWAPKPYHKFMAFKSFADLQHKPLLVDLTVEEGQ
1141 RLKVIFGSHTGFHVIDVDSGNSYDIYIPSHIQGNITPHAIVILPKTDGMEMLVCYEDEGV
1201 YVNTYGRITKDVVLQWGEMPTSVAYIHSNQIMGWGEKAIEIRSVETGHLDGVMHKRAQR
1261 LKFLCERNDKVFFASVRSGSSQVFFMTLNRNSMMNWZ

001200" 55151560

[illegible]

1 MASDSPARSLDEIDL SALRDPAGIFELVELVGN GTYGVYKGRHVKTGQLAAIKVMDVTG
61 DEEEEEIKQEI NMLKKYSHHRNIATYYGAFIKKNPPGMDDQLWLVMEFCGAGSVTDLIKNT
121 KGNTLKEEWIAYICREILRGLSHLHQHKVIHRDIKGQNVLLTENAEVKLVDFGVSAQLDR
181 TVGRRNTFIGTPYWMAPEVIACDENPDATYDFKSDLWSLGITAIEMAEGAPPLCDMHPMR
241 ALFLIPRNPAPRLKSKKWSKKFQSFIESCLVKNHSSQRPATEQLMKHPFIRDPNERQVRJ
301 QLKDHIDRTKKKRGEKDETEYEYSGSEEEEEENDSGEPSSIINLPGESTLRRDFRLQLA
361 NKERSEALRRQQLEQQQRENEEHKRQLLAERQKRIEEQKEQRRRLEEQQRREKELRKQQE
421 REQRRHYEEQMRREEERRRAEHEQEYKRKQLEEQRQAERLQRQLKQERDYLVS LQHQRQE
481 QRPVEKKPLYHYKEGMSPEKPAWAKEIPHLVAVKSSQGPALTASQSVHEQPTKGLSGFQE
541 ALNVTSHRVEMPRQNSDPTSENPLPTRIEKFDRSSWLRQEEDIPPKVPQRTTSSIPALA
601 RKNSPGNGSALGPRLGSGPIRASNPDLRRTEPILESPLQRTSSGSSSSSSSTPSSQPSSQG
661 GSQPGSQAGSSERTRVRANSKSEGSVPLPHEPAKVKPEESRDITRPSRPADLTALAKELR
721 ELRIEETNRPMKKVTDYSSSSSESESESEEEEEEDGESETHDGTVAVSDIPRLIPTGAPGSN
781 EQYNVGMVGTHGLETSHADSFSGSISREGTLMIRETSGEKKRSGHSDSNGFAGHINLPDL
841 VQSSHSPAGTPTEGLGRVSTHSQEMDSGTEYGMGSSTKASF TPFVDP RVYQTSPTDEDEE
901 DEESSAAALFTSELLRQEQAKLNEARKISVVNVNPTNIRPHSDTPEIRKYKRFNSEILC
961 AALWGVNLLVGTENGLMLLLDRSGQGKVYNLINRRRFQQMDVLEGLNVLVTISGKKNKLRV
1021 YYLSWLNRNRI LHNDEVEKKQGWITVGDLEGC IHYKVVKYERIKFLVIALKNAVEIYAWA
1081 PKPYHKFMAFKSFADLQHKPLLVDLTVEEGQRLKVI FGSH TGFHV IDVDSGNSYDIYIPS
1141 HIQGNITPAHAIVILPKTDGMEMLVCYEDEGVYVNTYGRITKDVLVQWGE MPTSVAYIHSN
1201 QIMGWGEKAIEIRSVETGHLDGVMHMKRAQLKFLCERN DKVFFASVRS GGSSQVFFMTL
1261 NRNSMMNWZ